IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit	:	2863
Examiner	:	Xiuqin Sun
Applicant	:	Kenichiro Kobayashi et al.
Appln. No.	:	10/737,336
Filing Date	:	December 16, 2003
Confirmation No.	:	6152
For	:	METHOD AND APPARATUS FOR DIRECT IMAGE PICK-UP OF GRANULAR SPECK PATTERN GENERATED BY REFLECTING LIGHT OF LASER BEAM

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, the undersigned, declare the following:

1. I am one of the inventors of the invention claimed in the above-identified patent application (U.S. Patent Application No. 10/737,336).

2. I have thoroughly reviewed Japanese Publication No. JP 07-110216 (hereinafter referred as "the Hiyoshi publication") and U.S. Patent No. 6,262,818 to Kikuchi et al. (hereinafter referred to as "the Kikuchi et al. '818 patent").

3. It is my opinion that the Hiyoshi publication does not disclose or teach a method and apparatus for direct image pick-up of a granular speck pattern generated by reflecting light of a laser beam that could be used in a relatively well lighted environment. When a translucent detection subject (for example, a transparent adhesive, blood, etc.) is irradiated with laser light, the irradiated laser light is reflected diffusively by the particles constituting the detection subject (in the case of blood, for example, red blood cells, white blood cells, and so on) such that the laser light transmitted through the detection subject forms a granular speckle pattern in space on the laser transmission side. (A granular speckle pattern also forms in space on the laser irradiation side.) This granular speckle pattern is not visible directly to the human eye, and would conventionally be projected onto a translucent material (for example, polished glass or the like) in a darkroom, and picked up indirectly from the opposite side of the translucent material by a typical commercially available camera (a digital camera or video camera). Therefore, a

conventional condition of picking up an image of a granular speckle pattern is that this be performed in a darkroom, and as a result of this condition, machines or devices using the properties of the speckle pattern (for example, parallel movement of the detection subject accompanying planar movement, contraction and expansion of the speckle accompanying front-to-back movement, reproducibility, high-precision (1/1,000 mm) measurement not requiring special indicators, and so on) have not been developed. The method and system of the Hiyoshi publication is such a conventional system and the system of the Hiyoshi publication would not work in a relatively well-lighted environment.

The undersigned hereby declares that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Sections 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Kenichiro Kobayashi.
Kenichiro Kobayashi

2006. 2. 10
Date